UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/757,704	01/14/2004	Gary L. Sugar	Cognio25US3	4476

27896   7590   12/19/2006
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EXAMINER
PHU, PHUONG M

ART UNIT	PAPER NUMBER
2611	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/19/2006	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

	Application No.	Applicant(s)
Office Action Summary	10/757,704	SUGAR ET AL.
	Examiner	Art Unit
	Phuong Phu	2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE **3** MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _08 November 2006_.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _19-28 and 34-41_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) _34-41_ is/are allowed.

6)☒ Claim(s) _19-28_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _4/28/04, 5/6/04_.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1.   This Office Action is responsive to the Election filed on 11/8/06. Accordingly, claims

19-28 and 34-41 are currently pending; and claims 1-18 and 29-33 are canceled.

Double Patenting

2.   The nonstatutory double patenting rejection is based on a judicially created doctrine
grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or
improper timewise extension of the "right to exclude" granted by a patent and to prevent possible
harassment by multiple assignees.   A nonstatutory obviousness-type double patenting rejection
is appropriate where the conflicting claims are not identical, but at least one examined
application claim is not patentably distinct from the reference claim(s) because the examined
application claim is either anticipated by, or would have been obvious over, the reference
claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re
Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225
USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re
Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163
USPQ 644 (CCPA 1969).
         A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may
be used to overcome an actual or provisional rejection based on a nonstatutory double patenting
ground provided the conflicting application or patent either is shown to be commonly owned
with this application, or claims an invention made as a result of activities undertaken within the
scope of a joint research agreement.
         Effective January 1, 1994, a registered attorney or agent of record may sign a terminal
disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR
3.73(b).

3.   Claims 19-23 are rejected on the ground of nonstatutory obviousness-type double

patenting as being unpatentable over claims 20-23 and 28, respectively, of U.S. Patent No.

6,714,605. Although the conflicting claims are not identical, they are not patentably distinct

from each other because claims 20-23 and 28 encompass the limitations of claims 19-23,

respectively.

4.   Claim 24 is rejected on the ground of nonstatutory obviousness-type double patenting as

being unpatentable over claim 28 of U.S. Patent No. 6,714,605 in view of claim 25 of U.S.

Patent No. 6,714,605.

-Regarding to claim 24, claim 28 discloses the claimed method except failing to teach that the step of detecting a peak comprises detecting power values above a threshold at a continuous set of frequencies. However, claim 25 teaches that such step of detecting a peak comprises detecting power values above a threshold at a continuous set of frequencies. It would have been obvious for one skilled in the art to implement the invention of claim 28 in such a way that the step of detecting a peak comprises detecting power values above a threshold at a continuous set of frequencies, as suggested by claim 25, so that the required peak detection would be obtained.

5.   Claim 25 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 28 of U.S. Patent No. 6,714,605 in view of claim 26 of U.S. Patent No. 6,714,605.

-Regarding to claim 25, claim 28 discloses the claimed method except failing to teach that the step of detecting a peak comprises detecting power values that exceed the threshold at contiguous Fast Fourier Transform (FFT) frequency bins. However, claim 26 teaches that such the step of detecting a peak comprises detecting power values that exceed the threshold at contiguous Fast Fourier Transform (FFT) frequency bins. It would have been obvious for one skilled in the art to implement the invention of claim 28 in such a way that the step of detecting a peak comprises the step of detecting a peak comprises detecting power values that exceed the threshold at contiguous Fast Fourier Transform (FFT) frequency bins, as suggested by claim 26, so that the required peak detection would be obtained.

6.   Claim 26 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 28 of U.S. Patent No. 6,714,605 in view of claim 27 of U.S. Patent No. 6,714,605.

-Regarding to claim 25, claim 28 discloses the claimed method except failing to teach step of providing for each detected peak, data including the maximum power value for each peak and frequency bins spanned by the peak. However, claim 27 teaches that such the method comprises step of providing for each detected peak, data including the maximum power value for each peak and frequency bins spanned by the peak. It would have been obvious for one skilled in the art to implement the invention of claim 28 to further comprise step of providing for each detected peak, data including the maximum power value for each peak and frequency bins spanned by the peak, as suggested by claim 27, so that the peak detection would be enhanced with the additional features of data including the maximum power value for each peak and frequency bins spanned by the peak.

7.   Claim 27 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 28 of U.S. Patent No. 6,714,605 in view of claim 29 of U.S. Patent No. 6,714,605.

-Regarding to claim 27, claim 28 discloses the claimed method except failing to teach that the step of detecting a signal pulse comprises detecting, from the peaks, signal pulses of multiple types using an associated set of ranges for one or more of bandwidth, center frequency and duration. However, claim 29 teaches that such the step of detecting a signal pulse comprises detecting, from the peaks, signal pulses of multiple types using an associated set of ranges for one or more of bandwidth, center frequency and duration. It would have been obvious for one

skilled in the art to implement the invention of claim 28 in such a way that the step of detecting a signal pulse comprises detecting, from the peaks, signal pulses of multiple types using an associated set of ranges for one or more of bandwidth, center frequency and duration, as suggested by claim 29, so that the required peak detection would be obtained

8.   Claim 28 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 28 of U.S. Patent No. 6,714,605 in view of claim 30 of U.S. Patent No. 6,714,605.

-Regarding to claim 28 of the instant application, claim 28 of U.S. Patent No. 6,714,605 discloses the claimed method except failing to teach step of storing digital signals representing samples of a received signal when a pulse of a particular type is detected. However, claim 30 teaches that such the method comprises step of storing digital signals representing samples of a received signal when a pulse of a particular type is detected. It would have been obvious for one skilled in the art to implement the invention of claim 28 of U.S. Patent No. 6,714,605 to further comprise step of storing digital signals representing samples of a received signal when a pulse of a particular type is detected, as suggested by claim 30, so that the peak detection would be enhanced with the additional feature of storing data.

Claim Rejections - 35 USC § 102

9.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10.   Claims 19, 22 and 23-28 are rejected under 35 U.S.C. 102(b) as being anticipated by

Priebe et al (5,565,764).

-Regarding to claim 19, Priebe et al discloses a system (see figure 4) comprising:

Fast Fourier Transform (FFT) block (420a) (see figure 4) that receives as input a digital

signal (510) (see figure 5a) representing activity in the frequency band and computes FFT values

(FOURIER TRANSFORM) (see figure 5b) for a plurality of frequency bins [400, 600] (see

figure 5b) for a time interval [0, 1500] (see figure 5a, col. 6, lines 18-34, col. 8, lines 11-18);

power calculation block (440a) (see figure 4) coupled to the FFT block that computes the

power at each frequency bin at each time interval (see figure 5b, col. 6, lines 28-45, col. 8, lines

11-15);

peak detector (450) (see figure 4) that receives as input output of the power calculation

block for successive time intervals of activity in a frequency band, detects one or more peaks

(520) (see figure 5c) in the spectral information and outputs information (460) (see figure 4)

identifying peaks for each time interval (see col. 6, lines 45-55, col. 8, lines 11-25); and

pulse detector (430) (see figure 4) coupled to the peak detector, the pulse detector detects

signal pulses in terms of detected PRI, frequency, PW, FD, intensity and modulation that satisfy

one or more characteristics indicated via "mathematics" being used based on the output of the

peak detector (see col. 6, lines 50-55, col. 7, lines 8-17).

-Regarding to claim 22, Priebe et al further discloses an RF receiver (120, 130) (see

figure 1) that downconverts signals received in the frequency band to a baseband signal and an

analog-to-digital converter (included in (140) coupled to the RF receiver that converts the

baseband signal to a digital signal, wherein the RF receiver is configurable to operate in a

wideband mode whereby it downconverts energy in the entire frequency band, or in a narrowband mode whereby it downconverts energy in a portion of the frequency band (see col. 4, line 41 to col. 5, line 8).

-Regarding to claim 23, as similarly applied to claims 19 and 22 and herein incorporated, Priebe et al discloses a method (see figure 4) for detecting signal pulses comprising:

procedure (420a, 440a) (see figure 4) of detecting one or more peaks (see figure 5b) in spectral information representing activity in a frequency band;

procedure (460, 430) (see figure 4) of detecting signal pulses (420) (see figure 5c) that meet one or more characteristics from the detected one or more peaks; and

procedure (430) (see figure 4) of outputting for each detected signal pulse, one or more of the power (INTENSITY), center frequency (FREQ) and duration of the signal pulse (PW).

-Regarding to claim 24, in Priebe et al, the step of detecting a peak inherently comprises detecting power values above a threshold (0) (shown in a vertical axis) at a contiguous set of frequencies [400, 600] (shown in a horizontal axis) (see figure 5b).

-Regarding to claim 25, in Priebe et al, the step of detecting a peak inherently comprises detecting power values that exceed the threshold (0) (shown in a vertical axis) at contiguous Fast Fourier Transform (FFT) frequency bins [400, 600] (shown in a horizontal axis) (see figure 5b).

-Regarding to claim 26, Priebe et al discloses procedure of providing for each detected peak, data including the maximum power value (INTENSITY) for each peak and frequency bins (FREQ) spanned by the peak (see figure 4, col. 6, lines 50-55, col. 7, lines 8-12, col. 8, lines 20-36).

-Regarding to claim 27, Priebe et al discloses that the step of detecting a signal pulse comprises detecting, from the peaks, signal pulses of multiple types (coherent or non-coherent pulse) using an associated set of ranges for one or more of bandwidth, center frequency and duration (see col. 5, line 30 to col. 6, line 17, col. 10, lines 26-50, col. 13, lines 15-25).

-Regarding to claim 28, in Priebe et al, procedure of storing digital signals representing samples of a received signal when a pulse of a particular type is detected is inherently included so that data of the digital signals representing samples of a received signal can be gathered and displayed (as shown in figure 5c).

Allowable Subject Matter

11.   Claims 34-41 are allowed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuong Phu whose telephone number is 571-272-3009. The examiner can normally be reached on M-F (8:00 AM - 4:30 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on 571-272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Phuong Phu
Primary Examiner
Art Unit 2611

PHUONG PHU
PRIMARY EXAMINER

Phuong Phu
12/06/06